

NZNO Cancer Nurses Section Position Statement on the Minimum Education Requirements for Nurses involved in the Administration of Anti-Cancer Drugs within the Oncology and Non-Oncology Setting



Preamble

Anti-cancer drugs are therapeutic agents intended primarily for the treatment of cancer. The use of these agents as a component of cancer treatment has increased rapidly over the past few decades largely due to scientific developments in the area of cancer biology¹. The term anti-cancer drugs for the purpose of this position statement include traditional anti-neoplastic agents (chemotherapy), monoclonal antibodies and targeted therapies.

Anti-cancer drugs are administered utilising a range of administration routes and formulations, typically delivered over extended periods, which vary in length and cycles.

Specific knowledge, skills and competency standards are required by health professionals to ensure safe and competent administration of these agents, in addition, the after care of people receiving these agents should be considered. Nurses must be appropriately trained to do this, and organisations must ensure these nurses work in appropriately resourced settings^{2,3,7}.

Historically, people receiving anti-cancer drugs were managed in the tertiary cancer centres. Improvements in side effect management combined with demands for cost containment, advances in technology and a greater emphasis on consumer preferences have contributed to increased numbers of smaller centres providing chemotherapy in provincial and remote communities.

The NZNO Cancer Nurses Section acknowledges that there are nurses practising outside of the oncology/haematology setting who are administering both anti-cancer drugs and non-cancer targeted therapy agents in the treatment of diseases other than cancer.

This position statement, in conjunction with national and local policy, aims to address the minimum education requirements for any nurse administering anti-cancer drugs in any health care setting to ensure the safe delivery of care to cancer patients receiving anti-cancer drugs.

Cancer Nurses Section Philosophy

The Cancer Nurses Section believes that nurses should abide by legislation, guidelines and professional standards relevant to their scope of practice as stated in the:

- Health Practitioners Competence Assurance Act 2003
- New Zealand Nursing Council Code of Conduct for Nurses and Midwives 1995
- Code of Health and Disability Services Consumers Rights 1995
- Hospitals Regulations 1993
- Medicines Act 1981
- Hospitals Act 1957
- Health Act 1956

- National Professional Development Framework for Cancer Nursing in New Zealand 2009,
- Registered Nurse Scope of Practice Nursing Council of New Zealand 2010
- NZNO Code of Ethics 2010
- Te Tiriti O Waitangi – Principles of partnership, protection and participation

This requires that:

- The nurse is personally and professionally accountable for the provision of safe and competent nursing care. Therefore, it is the responsibility of each nurse to maintain the competence necessary for current practice.
- A nurse must take full accountability for their actions understanding activities that are not within their scope of practice may compromise the safety of an individual. The scope of practice is based on each nurse's education, knowledge, competency, extent of experience and lawful authority.
- Nurses have a responsibility to be familiar with relevant laws to ensure that they do not engage in practices prohibited by such laws or delegate to others those activities prohibited by those laws.

In addition, the Cancer Nurses Section believes that:

- Specific education and training is necessary for health care personnel involved in the preparation, transport, administration and disposal of anti-cancer drugs and related waste, in order to minimise the risk of exposure of health care personnel, visitors and the environment and ensure safe and quality health services for people receiving anti-cancer therapies.
- Only registered nurses with specific education and training in the safe handling of anti-cancer drugs and related waste should administer anti-cancer therapies.
- Employers must ensure nurses involved in administering anti-cancer drugs have access to education; training and environmental factors such as ease of access, light and space and other resources are addressed as a matter of necessity to ensure minimum professional and safety standards are met.
- Employers must ensure that risk assessments have been conducted and recommended processes are in place to enable nurses to maintain their competency and scope of practice in this field.

Rationale

Anti-cancer drug regimens are highly toxic to cells, and can result in a range of acute and chronic adverse effects for both the persons receiving and for those administering these treatments^{1,9,10,11}. A number of these adverse effects are potentially life-threatening. The safe and effective delivery of these drugs therefore requires highly complex clinical assessment, technical and problem solving skills.

Specifically, the use of oral anti-cancer drugs requires the patient to self-administer treatment at home where drug, dose or scheduling errors are unlikely to be detected². Cancer nurses have an important role in the education of patients receiving oral anti-cancer drugs through providing specific instructions and support to these patients. It is vital to prevent medication errors and to monitor toxicities in this patient population. Patient education materials should be appropriate for the patient's reading level/literacy, patient caregiver understanding⁷.

There is considerable evidence that people who receive anti-cancer treatment experience considerable psychological distress, and have high levels of need for specialised information and support⁶. As anti-cancer treatments are often delivered over extended periods of time and require ongoing monitoring, the follow up coordination of care for the person receiving them also requires advanced nursing skills.

People receiving anti-cancer drugs require specific education in relation to both the acute and long-term side effects associated with their treatment. Cancer nurses delivering these treatments are responsible within their delivery of care to provide this level of education and information as well as delivering the treatments in the prescribed manner, safely and effectively.

Minimum Requirements

The increasing level of complexity in the administration of anti-cancer drugs requires appropriate levels of expertise and knowledge for safe and effective delivery of these agents. Staff administering these agents must have access to the most up-to-date resources within their work setting, including electronic sources.

The National Professional Development Framework for Cancer Nursing New Zealand³ outlines the competency standards for the cancer nurse within a professional development framework to guide the development of a sustainable nursing workforce capable of providing optimum, effective and safe services that meet the needs of all people affected by cancer. Supporting resources designed to assist in the professional development of all cancer nurses regardless of setting, including resources concerning anti-cancer agents are outlined in the attached appendix 1.

A nurse must complete education requirements and demonstrate relevant competencies and capacities associated with anti-cancer drug administration prior to administering any anti-cancer drug independently. The education requirements should include theoretical and clinical practice components and incorporate the following topics:

- Cancer cell biology and principles of the development of anti-cancer drugs.
- Principles and safe practice of anti-cancer drug administration.
- Principles of safe cannulation and Central Venous Access Device management.
- Adverse effects and toxicities associated with anti-cancer drugs.
- Assessment for early identification, ongoing monitoring, and principles of prevention and management of adverse effects and toxicities.
- Education and psychological support for persons receiving anti-cancer drugs.
- Ethical and legal issues associated with the administration of anti-cancer drugs.

Nurses should demonstrate a minimum level of theoretical knowledge in each of the above areas and satisfactorily demonstrate practical skills and clinical competence associated with the administration of these anti-cancer drugs, along with the associated care of the patient and their family.

Further education and training for nurses involved in administering anti-cancer drugs should be undertaken when new drugs, protocols or equipment are introduced or when procedures change. A nurse's continuing competence in the administration of anti-cancer drugs and handling of related waste should be maintained through participation in relevant professional development and education activities regularly, ideally on an annual basis.

References

1. Polovich, M. White, J.M. Kelleher, L.O. (2008) Chemotherapy and Biotherapy Guidelines and Recommendations for Practice, 3rd ed, Oncology Nursing Society, PA, USA.
2. Clinical Oncology Society of Australia (COSA) (2008) Guidelines for the Safe Prescribing, Dispensing and Administration of Cancer Chemotherapy
3. National Professional Development Framework for Cancer Nursing in New Zealand (2009)
4. Australian Nursing Council (2003) Code of Professional Conduct for Nurses in Australia.
5. Australian Nursing Council Inc (2008) ANCI Code of Ethics for Nurses in Australia.
6. National Health and Medical Research Council (2001) Psychosocial Clinical Practice Guidelines.
7. Jacobson, J. Lefebvre, K. Galioto, M. (2009) American Society of Clinical Oncology/Oncology Nursing Society Chemotherapy Administration Safety Standards, Oncology Nursing Forum, vol.36, no.6, pp 651-658.
8. <http://www.cancerlearning.gov.au>
9. Queensland Workplace Health and Safety Strategy (2005): Guide for Handling Cytotoxic Drugs and Related Waste. Queensland Government Department of Industrial Relations.
10. Victorian Workcover Authority (2003). Handling cytotoxic drugs in the workplace. Victorian Government.
11. Workcover Authority of New South Wales (2008). Cytotoxic Drugs and Related Waste Guide 2008 (3rd edition). New South Wales Government.

Acknowledgement

Adapted from: Cancer Nurses Society of Australia Position Statement on the Minimum Education Requirements for Nurses involved in the Administration of Anti-Cancer Drugs within the Oncology and Non-Oncology Setting

Disclaimer

This statement is a general guide to appropriate practice to be followed only subject to the clinician's judgment. The statement is designed to provide information to assist decision-making, and is not meant to be prescriptive. Those who use this statement should make their own determination regarding specific safe and appropriate clinical practices. While care has been taken to ensure that this statement reflects the state of general knowledge and expert consensus about practice in the field as at the date of publication, CNSA does not make any warranty or guarantee in respect to any of the contents or information contained in this statement nor accept responsibility or liability whatsoever for any errors or omissions in the statement.

Appendix 1 - Recommended Resources suitable for building an evidence based education programme

See also Appendix 1 - Cancer Nurses Section – Position Statement on the Minimum Safety Requirements for Nurses involved in the Administration of Anti-Cancer Drugs within the Oncology and Non-Oncology setting.

- Cancer Nurses Society of Australia (CNSA) www.cnsa.org.au
This position statement has been adapted from the document of the same name published on the CNSA website.
The CNSA has several very good publications suitable for use as part of an evidence based programme.
- EdCan and Cancer Learning Australia www.cancerlearning.gov.au
As the National Professional Development Framework for Cancer Nurses in New Zealand 2009 was developed with significant input and knowledge gained from the National Cancer Nursing Education Project of Australia, we have continued to explore this relationship and with permission utilize the comprehensive resources available. We highly recommend the interactive modules on this website.
- Oncology Nurses Society (ONS) - Biotherapy and Chemotherapy guidelines.
ONS has been at the forefront of improving access to education and information for cancer nurses around the world. They have many publications available for purchase from their online store. The website also offers CE to members.
- European Oncology Nursing Society (EONS) www.cancernurse.eu/documents/EONSClinicalGuidelinesSection6-en.pdf
In particular the toolbox section of the EONS website contains a comprehensive guideline on managing extravasation.
- eviQ Cancer Treatments Online - <https://www.eviq.org.au/>
eviQ is a point of care clinical information resource that provides health professionals with current evidence based, peer maintained, best practice cancer treatment protocols and information.
- BC Cancer Agency - <http://www.bccancer.bc.ca/default.htm>
British Columbia (BC) Cancer Agency - This website is very comprehensive. In particular the Cancer Drug Manual and Chemotherapy Protocols provide valuable resources for patients and nurses.
- International Society of Nurses in Cancer Care (ISNCC) www.isncc.org
CNS has been affiliated as a partner with ISNCC for 2 years. Their online publication Fundamentals in Oncology has informed many Cancer Nurses around the world.
- <http://www.macmillan.org.uk/Home.aspx>
Formerly Cancer Backup – great source for patient information
- The cell Cycle - <http://nobelprize.org/educational/medicine/2001/about.html>
This website has a great interactive game on the cell cycle. Highly recommended.
- The National Comprehensive Cancer Network® (NCCN®), <http://www.nccn.org/index.asp> -
a not-for-profit alliance of 21 of the world's leading cancer centers. Resources for patients and nurses including CE.
- Canadian Association of Nurses in Oncology - http://www.cano-acio.ca/references_and_resources
Canada has similar geographical topography to NZ. They have developed some excellent resources for managing this. This section of their website contains comprehensive telephone guidelines for managing cancer and side effect symptoms.